

REMARKS

As a preliminary matter, Applicants thank the Examiner for the courtesy shown to Applicants' representative, Josh C. Snider, in the Telephone Interview conducted on November 30, 2004. Independent claims 1-2, 4, and 13 were discussed with respect to the Lal (U.S. 5,580,667) and Bertero (U.S. 6,150,015) references. With respect to independent claims 1-2 and 4, agreement was not reached as to the claims in their present form, however, proposed amendments to these claims were discussed with respect to the same references. Agreement was reached that the proposed correction of antecedent basis issues, along with clarification of the inclusion/exclusion of the non-magnetic element in the magnetic crystal layer, served to exclude the teachings of the Lal reference against the present invention.

More specifically, the Examiner indicated that, by clarifying that the non-magnetic element recited in the claims is the same non-magnetic element throughout the claim, the cited portions from the Lal reference do not read upon claims 1-2 and 4 because Lal teaches a Cr gradient in exactly the opposite direction to the concentrations of the non-magnetic element cited in the claims. Accordingly, independent claims 1-2 and 4 are amended herein according to the proposed amendments submitted to discuss with the Examiner in the Telephone Interview, and to which agreement was reached.

With respect to independent claim 13, agreement could not be reached because the Examiner indicated he did not yet have the opportunity to review the Declaration of Ryoichi Mukai, one of the present inventors, submitted on July 23, 2004, along with

Supplemental Response E. Accordingly, no amendments are included herewith for independent claim 13.

Claims 1-4, 6, 21-22, and 24-26 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Lal in view of Bertero. Applicants respectfully traverse this rejection for at least the reasons discussed above. As agreed by the Examiner, independent claims 1-2 and 4 are now clarified to recite that the lower part of the magnetic crystal layer partly excludes the non-magnetic element, and the upper part completely excludes the non-magnetic element. Lal, on the other hand, teaches a gradient for Cr (the non-magnetic element identified by the Examiner) in the opposite direction, namely, the “upper part” of the magnetic layer having Cr in a greater concentration than the “lower part.” Accordingly, the Section 103 rejection of independent claims 1-2 and 4 is respectfully traversed for at least these reasons.

Claim 3 depends from independent claim 2, claim 6 depends from independent claim 4, and claims 21-22 and 24-26 depend from independent claim 1, and therefore all of these dependent claims include the features of the respective base claim, plus additional features. Accordingly, the Section 103 rejection of these claims based upon the combination of Lal and Bertero is respectfully traversed for at least the reasons discussed above in traversing the rejection of the base claims.

Claims 5, 13 and 23 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Lal in view of Bertero, and further in view of Okumura et al. (U.S. 5,700,593). Applicants respectfully traverse this rejection for at least the reasons of record.

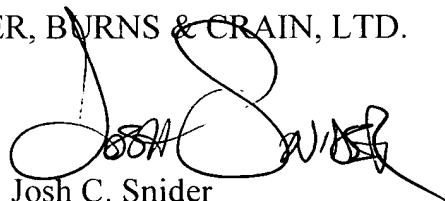
Applicants submit that the facts and opinions expressed in the sworn Declaration of the inventor, Ryoichi Mukai, along with the arguments presented in Supplemental Response E, should be sufficient to overcome the rejection of independent claim 13 (and its dependent claim 23) based on the proposed combination. As attested to in the Declaration, a 5nm thick Ti layer does not form nucleation sites spaced apart from one another as a discontinuous layer in a layered polycrystalline structure.

For all of the foregoing reasons, Applicants submit that this Application, including claims 1-6, 13, and 21-26, is in condition for allowance, which is respectfully requested. The Examiner is invited to again contact the undersigned attorney if a further interview would help expedite prosecution.

Respectfully submitted,

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February 2, 2005

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